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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,669	07/17/2000	Eric P. Traut	MSFT-2118/304101.01	8184

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EXAMINER
CHUONG, TRUC T

ART UNIT	PAPER NUMBER
2179	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/617,669	TRAUT ET AL.
	Examiner	Art Unit	
	Truc T. Chuong	2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. ·
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 October 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

This communication is responsive to RCE, filed 10/25/05.

Claims 1-20 are pending in this application. Claims 1, 8, 11, and 12 are independent

claims, and they are amended. This action is made non-final.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-2, 6, 8-15, and 17-20 are rejected under 35 U.S.C. 102(e) as anticipated by or,

in the alternative, under 35 U.S.C. 103(a) as obvious over Madden et al. (U.S. Patent No.

6,178,503 B1) in view of Multiple Bootable Operating System of IBM technical Disclosure

Bulletin (Hereinafter IBM, June 1, 1992, pages 1-4).

As to claim 1, Madden teaches a computer system for running one or more software

applications, wherein the software applications are suitable for generating a video output, said

single computer system comprising:

a host operating system suitable for displaying a graphical user interface (graphical user

interface support on a computer, e.g., col. 5 lines 1-9, and figs. 2, 3 & 6);

multiple emulated operating systems being emulated by one or more emulator programs

running on the host operating system (the system for managing multiple operating systems on the

computer, and the single menu for listing all available operating systems and operating system

modes on that computer, e.g., col. 5 lines 1-9, lines 46-50, and fig. 6), wherein at least two of the

multiple operating systems are being simultaneously emulated (Madden implies that there are at

least two operating systems are emulated as thumbnail icons shown in fig. 6, and they are

simultaneously working in the background because the system of Madden clearly states that to

support more than one operating system in a given hard drive partition (e.g., col. 8 lines 46-59),

which is divided the hard drive into different segments, and the system is capable of switching

different operating modes (e.g., col. 9 line 37-col. 10 line 4); therefore, the system of Madden

and its operating systems are simultaneously working in the background and being emulated as

thumbnail icons shown in fig. 6. Alternatively, if Madden does not clearly provide such feature,

IBM clearly teaches that the system permits simultaneous emulation of different operating

systems to be run o a single machine by separate partitioned region on a hard disk drive (similar

to Madden as mentioned above) (IBM, e.g., page 1). It would have been obvious at the time of

the invention that a person with ordinary skill in the art would want to modify the system of

Madden having the feature of IBM to help to tie different OSs together so that the user can gain

the advantage of synergy between different OSs, in middle of page 1); and

wherein the host operating system is able to display for a user a reduced-size (Madden,

e.g. fig. 6) that are being operated in a background mode (e.g., col. 8 lines 46-59, col. 9 line 37-

col. 10 line 4, and fig. 6);

As to claim 2, Madden teaches the computer system of claim 1, further comprising one or

more virtual video memory components suitable for storing the video output of the emulated

operating systems (e.g., col. 5 lines 1-9, lines 46-50, and fig. 6).

As to claim 6, Madden teaches the computer system of claim 1,

wherein the graphical user interface is a windowing environment suitable for displaying

one or more windows (e.g., 2, 3 & 6); and

wherein the portion of the graphical user interface comprising the reduced-size

representation is a window (Madden implies that there are at least two operating systems are

emulated as thumbnail icons shown in fig. 6).

As to claim 8, it is individually similar in scope to claim 1 above; therefore, rejected

under similar rationale.

As to claim 9, Madden teaches the computer system of claim 8, wherein the reduced-size

representations are representations of the video outputs of the virtual machines that are being

operated in the background mode (they are simultaneously working in the background because

the system of Madden clearly states that to support more than one operating system in a given

hard drive partition (e.g., col. 8 lines 46-59), which is divided the hard drive into different

segments, and the system is capable of switching different operating modes (e.g., col. 9 line 37-

col. 10 line 4).

As to claim 10, the modified Madden teaches the computer system of claim 9,

further comprising a virtual video memory associated with each of the virtual machines

(Madden, e.g., col. 6 lines 5-10, IBM, virtual machine, in middle of page 1); and

wherein the reduced-size representations are generated from the video information stored

in the virtual video memory associated with each virtual machine (e.g., col. 6 lines 5-10, and fig.

6).

As to claim 11, the modified Madden teaches a method for displaying a reduced-size

image of multiple emulated computer systems executing on a single computer system, wherein at

least two of the multiple computer systems are being simultaneously emulated, said method

comprising the steps of:

suspending one or more of the multiple emulated computer systems by saving to memory

in the host computer system the image of the emulated computer system (Madden implies that

there are at least two operating systems are emulated as thumbnail icons shown in fig. 6, and

they are simultaneously working in the background because the system of Madden clearly states

that to support more than one operating system in a given hard drive partition (e.g., col. 8 lines

46-59), which is divided the hard drive into different segments, and the system is capable of

switching different operating modes (e.g., col. 9 line 37-col. 10 line 4); reading in at the emulator

program from memory in the host computer system the image of the suspended emulated

computer system (e.g., col. 8 lines 46-59); interpreting in the emulator program the contents of

the saved image of the suspended emulated computer system (e.g., col. 9 line 37-col. 10 line 4);

displaying a reduced-size representation of the suspended emulated computer system

(e.g., col. 8 lines 46-59, col. 9 line 37-col. 10 line 4, and fig. 6).

As to claim 12, Madden teaches a method for displaying a reduced-size image of multiple

emulated computer systems executing on a single computer system, wherein at least two of the

multiple computer systems are being simultaneously emulated, said method comprising the steps

of:

reading in at the emulator program from memory in the host computer system the image

of the emulated computer system; interpreting in the emulator program the contents of the image

of the emulated computer system (Note the rejection of claim 11 above);

displaying a reduced-size representation of the emulated computer system (Note the

rejection of claim 11 above);

periodically updating the reduced-size representation of the emulated computer system

(each of the plurality operating systems of Madden is running in the background as mentioned

above; therefore, each thumbnail icon is also updated to reflect the current status).

As to claims 13-15, and 17-20, they are method claims of system claims 1, 1, 2, 8, 1, 9,

and 10. Note the rejections of claims 1, 1, 2, 8, 1, 9, and 10 above respectively.

3.   Claims 3-5, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Madden et al. (U.S. Patent No. 6,724,403) in view of Multiple Bootable Operating System of

IBM technical Disclosure Bulletin (Hereinafter IBM, June 1, 1992, pages 1-4), and further in

view of Ote et al. (U.S. Patent No. 5,367,628).

As to claim 3, the modified Madden in view of IBM teaches the computer system of

claim 2, but the modified Madden does not teach wherein one or more of the video memory

components are VRAM memory. Ote clearly teaches VRAM memory (col. 4 lines 47-56, and

figs. 2-3). It would have been obvious at the time of the invention that a person with ordinary

skill in the art would want to have this highly desirable feature of Ote's VRAM into the modified

system of Madden to provide fast-block-transfer access to the internal memory.

As to claim 4, the modified Madden teaches the computer system of claim 1, wherein the

emulated operating systems operating in a background mode are active (each of the plurality

operating systems of Madden is running in the background as mentioned above; therefore, each

thumbnail icon is also updated to reflect the current status), and one or more thumbnail images

(e.g., fig. 6); but the modified Madden does not clearly show wherein information stored on the video memory components at predetermined intervals. Ote clearly teaches periodically transfer display text and image data, col. 3 lines 50-55, and col. 4 lines 47-55). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to add Ote's time interval into the modified system of Madden to update displayed information.

As to claim 5, Madden teaches the computer system of claim 4, wherein the predetermined intervals are such that the thumbnail images are real-time representations of the video output from the active software applications (Madden implies that there are at least two operating systems are emulated as thumbnail icons shown in fig. 6, and each of the plurality operating systems of Madden is running in the background as mentioned above; therefore, each thumbnail icon is also updated to reflect the current status).

As to claim 16, this is a method claim of system claim 3. Note the rejection of claim 3 above.

4.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable Madden et al. (U.S. Patent No. 6,724,403) in view of Multiple Bootable Operating System of IBM technical Disclosure Bulletin (Hereinafter IBM, June 1, 1992, pages 1-4), and further in view of Brett (U.S. Patent No. 5,850,471).

As to claim 7, the modified Madden does not teach the reduced-size representations are created using a bilinear sampling technique; however, Brett clearly describes the bilinear sampling technique in his High-definition Digital Video Processing System (col. 10 lines 58-74 and col. 11 lines 1-11). It would have been obvious, at the time of the invention, a person with

ordinary skill in the art would want to have this data reduction feature of Brett's bilinear

sampling technique into the modified system of Madden to improve performance and quality in

graphic data loading process (Brett, e.g., col. 11 lines 1-10).

Response to Arguments

5.   Applicant's arguments with respect to claims filed 10/25/05 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Watanabe et al. (U.S. Patent No. 6,763,458 B1) teach selecting a plurality of

operating systems on one machine (cols. 1-44).

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Truc T. Chuong whose telephone number is 571-272-4134. The

examiner can normally be reached on M-Th and alternate Fridays 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Truc T. Chuong

01/20/06

BA HUYNH
PRIMARY EXAMINER